

**REMARKS**

Claims 1-30 were previously pending in this application.

Claims 1-30 are cancelled, without prejudice or disclaimer.

New claims 31-52 are added.

As a result, claims 31-52 are pending for examination; of which, claims 31, 41, and 49 are independent claims. No new matter has been added. Support for the amendments and the new claims can be found throughout the specification, including the claims, as originally filed.

**Objection to the Specification**

The specification has been objected to because it includes a reference to a publication. An amendment to the disclosure to include material incorporated by reference has been required.

The material incorporated by reference is not essential material. Applicant has referred to the publication to note that ultraviolet lamps tend to provide decreasing intensity with use as explained in the sentences preceding and following the sentence citing the references. Applicant has merely supported this notion by citing the reference. Therefore, the material is not essential and need not be incorporated by reference.

The specification has been amended to remove the language incorporating the reference. Therefore, the objection has been overcome. Accordingly, Applicant respectfully requests reconsideration of the requirement as well as withdrawal of the objection to the specification.

**Objection to the Drawings**

The drawings have been objected to as failing to include reference numerals 46 and 48. A proposed drawing correction of FIG. 1 including reference signs 46 and 48 are included for consideration. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the objection to the drawings.

**Rejection under 35 U.S.C. § 112**

Claims 10-12 and 22-23 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 10-12 and 22-23 have been cancelled thereby overcoming the rejection.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 102

Claims 1-3, 13, 14, 17-20 and 28-30 have been rejected under 35 U.S.C. § 102(b) as being anticipated by the teaching of Pisani in U.S. Patent No. 4,990,260 (hereinafter Pisani).

Applicant disagrees that claims 1-3, 13, 14, 17-20 and 28-30 are anticipated by the teaching of Pisani. Pisani teaches a method and apparatus for removing oxidizable contaminants in water to achieve high purity water for industrial use. Pisani utilizes high purity water and irradiates the high purity water with ultraviolet radiation to oxidize any oxidizable contaminants to be removed from the water before being used for industrial cleaning purposes. Significantly, Pisani teaches a method and apparatus that utilizes ultraviolet radiation as a polishing means to remove undesirable species in such stream used for industrial cleaning operations. That is, implicit within the systems of Pisani is the notion that the fluid introduced into the ultraviolet radiation-generating device is a fluid having undesirable species. Thus, Pisani fails to teach a system comprising a free radical generator connectable to a substantially pure water source, or a method comprising providing substantially pure water (low oxygen demand) to a free radical generator.

Nonetheless, claims 1-3, 13, 14, 17-20 and 28-30 have been cancelled thereby overcoming the rejection.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

Rejections under 35 U.S.C. § 103

Claims 21-23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Pisani. Claims 4 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Pisani in view of the teaching of Haraga et al. in Japanese Publication No. JP411033542A. Dependent claims 5, 6, 15, and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Pisani in view of the teaching of Gonzalez-Martin et al. in U.S. Patent No. 5,779,912 (Gonzalez-Martin et al.). Dependent claims 8-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of

Pisani in view of the teaching of Peterson in U.S. Patent No. 4,952,376. Dependent claims 24 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Pisani in view of the teaching of Gonzalez-Martin et al. and further in view of the teaching of Schulte et al. in U.S. Patent No. 5,348,665. Dependent claim 26 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Pisani in view of the teaching of Bieler et al. in U.S. Patent No. 4,456,512.

There is no *prima facie* case of obviousness because none of the references provide any teaching, suggestion, or motivation to combine or modify their respective teachings. Further, even if the teachings could have been combined as suggested, which Applicant does not concede, the proposed combination would not result in the invention as claimed.

Nonetheless, claims 4-12, 15-16, and 21-26 have been cancelled thereby overcoming the rejections.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a).

#### Allowable Subject Matter

Claim 27 has been objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Independent claim 31 has been added which includes all of the limitations of independent claim 26 as well as those of dependent claim 27. Accordingly, independent claim 31 is allowable. Dependent claims 32-40 depend from independent claim 31. These dependent claims further recite additional features of the invention. These claims are also allowable for at least the same reasons.

Claims 38-52 have been added. These claims are likewise allowable for at least the same reasons claims 31-40 are allowable.

No new matter has been added with the newly added claims. Support of each of these claims can be found throughout the specification, including the claims, as originally filed.

Accordingly, Applicants respectfully request entry and allowance of newly added claims 31-51.

**CONCLUSION**

In view of the foregoing Amendments and Remarks, this application is in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes that the application is not in condition for allowance, the Examiner is requested to call Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/0214.

Respectfully submitted,  
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